

**REMARKS**

Applicants submit this paper in response to the Office Action dated October 27, 2003 that was issued in the above-identified application. Applicants respectfully request reconsideration of the instant application in view of the amendments and remarks presented herein.

Although a formal rejection of claim 5 under 35 U.S.C. § 112 has not been made, the Examiner has requested that Applicants inform the Examiner as to where in the specification enablement is found for isotope marking. In this regard, the Examiner's attention is directed to p.11, lines 25-31, of the specification which discloses the use of isotope marking for evaluation of cell traces.

**1. The Rejections Under 35 U.S.C. §112, Second Paragraph Should Be Withdrawn**

Claims 52-77 are rejected under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant views as the invention.

The Examiner alleges that in claim 52, line 1, meaning of "traced" is not understood. In this regard, the Examiner's attention is directed to p.7, lines 1-26, which clearly defines the meaning of traces.

Claim 55 is rejected because it is unclear what is intended by the term "they."

Claim 56 is rejected because it is unclear what is intended by the phrase "on the basis."

Claim 57 is rejected because it is unclear what is intended by the phrase "they are."  
Claim 61 is rejected because it is unclear what is intended by the phrase "their

impedance."

Claim 62 is rejected because it is unclear what is intended by the phrase "their elasticity."

Claim 75 is rejected because it is not understood what is intended by the phrase "an implant material."

Applicants have amended claims 55-57, 61-62 and 75 to particularly point out and distinctly claim the subject matter which Applicant views as the invention. Support for the amended claims can be found in the specification. No new matter is added.

In view of the amended language of the claims, the rejections under 35 U.S.C. §112 should be withdrawn.

**2. Claims are Novel Over the Cited Document**

Claims 52-71 and 74-77 are rejected under 35 U.S.C. §102(a) as allegedly anticipated by Fuhr et al. (hereinafter "Fuhr"). The Examiner has alleged that Fuhr discloses the present invention as claimed.

Applicants traverse this rejection and assert that not all the authors listed on the Fuhr reference, *i.e.*, Heiko Zimmermann, Hermine Hitzler and Horst Niehus, are inventors of the present invention. Specifically, Dr. Heiko Zimmermann only made atomic force microscopy (ATM) measurements as well as optical microscopy measurements. Dr. Hermine Hitzler also contributed to such measurements and, in addition, conducted a literature search for publications relating to interference reflection microscopy. Dr. Horst Niehus also contributed to the ATM technique. Further, Dr. Hermine Hitzler and Dr. Horst Niehaus contributed to the draft of the

publication text. Applicants have prepared a Katz Declaration for signature by the named inventors which avers to the facts stated above. The Declaration has been sent out for execution by the inventors and will be forwarded to the Examiner's attention upon receipt.

3. **Claims are Not Anticipated or Rendered Obvious Over the Cited Reference**

Claims 52-54, 58, 63-66, 68-76 are rejected under 35 U.S.C. §102(b) as being anticipated by Matsuda et al., (hereinafter "Matsuda") The Examiner has alleges that Matsuda teaches patterns of adhesive and non-adhesive domains on tissue culture dishes of varying widths to study cell adherence, migration and proliferation.

Claims 55-57, 59-62, and 67 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Matsuda. The Examiner alleges that claims 55-57 and 59-62 differ from Matsuda in that they include limitations regarding analysis if the cell traces. According to the Examiner, it would have been obvious to one of ordinary skill in the art at the time the invention was made to analyze cell traces as described by Matsuda with the analytical methods presently claimed because Matsuda teaches determining the tracks and movement rates over time.

Applicants traverse this rejection and assert that the instant claimed invention is neither anticipated, nor rendered obvious, over Matsuda. Applicants respectfully point out that Matsuda does not teach or suggest the limitations of independent claim 52, *i.e.*, **analysis of cell traces that consist of material residues separated from the cells as the cells move over a surface track region and wherein said analysis is used for identification of biological properties associated with a test cell.** Rather, Matsuda merely describes methods for controlling the migration of cells in a surface controlled manner. Specifically, Matsuda teaches

that surfaces can be modified with cell-adhesive and non-adhesive domains with controlled dimensions and that cells adhere, migrate and proliferate only on cell-adhesive domains.

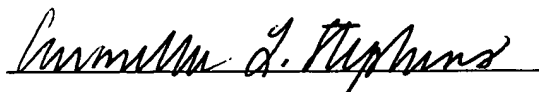
Moreover, it should be noted that Matsuda did not even base his analysis of cell migration on detection, or analysis, of cell traces. Rather, Matsuda measured migration through time-lapse video recording to determine the positions of individual cell nuclei and digitized them on a TV monitor (see, Matsuda, p. 166, Materials and Methods). Indeed, Applicants have carefully reviewed Matsuda, and have failed to find a single disclosure, or suggestion, of anything having to do with cell traces, much less wherein a cell trace, i.e., material residues separated from the cells as the cells move over a surface track region, are analyzed to identify a property of said cells. Therefore, the claimed invention is not anticipated, nor rendered obvious by Matsuda, and the rejection under 35 U.S.C. §102 and §103 should be withdrawn.

#### CONCLUSION

Entry of the foregoing remarks into the file history of the above identified application is respectfully requested. Applicant believes that the invention described and defined by the claims is patentable over the rejections of the Examiner. Withdrawal of all rejections and reconsideration of the claims is requested. An early allowance is earnestly sought.

Respectfully submitted,

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